CLAIMS

Please amend claims 1, 3, 5, 7, and 8 as follows:

1. (Twice amended) A processing system for performing addition and subtraction within limits upon a shared value comprising:

means for performing a first uninterruptible operation upon the shared value stored in an affected reservation location, the first uninterruptible operation using an operand;

means for comparing a resulting value of the first uninterruptible operation stored in the affected reservation location to an upper value and a lower value to determine if the resulting value is within a range defined by the upper value and the lower value that can be changed [limit values stored in limit locations];

means for performing a second uninterruptible operation to restore the affected reservation location if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value[limit values in the limit locations];

means for reporting a failure if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value [limit values in the limit locations];

means for performing a third uninterruptible operation to update an actual value location if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations];

means for performing a fourth uninterruptible operation to update an unaffected reservation location if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations]; and

means for reporting a success if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations].

2. (Previously presented) The processing system of claim 1 wherein the first, second, third, and fourth uninterruptible operations are LOCK XADD operations.

3. (Twice amended) A processing system for performing addition and subtraction within limits upon a shared value comprising:

means for receiving an operand;

means for performing a first uninterruptible operation upon the shared value stored in an affected reservation location, the first uninterruptible operation using the operand;

means for comparing a resulting value of the first uninterruptible operation stored in the affected reservation location to an upper value and a lower value to determine if the resulting value is within a range defined by the upper value and the lower value that can be changed [limit values stored in limit locations];

means for performing a second uninterruptible operation to restore the affected reservation location if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value [limit values in the limit locations];

means for and reporting a failure if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value [limit values in the limit locations];

means for performing a third uninterruptible operation to update an actual value location if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations];

means for performing a fourth uninterruptible operation to update an unaffected reservation location if the resulting value of the first uninterruptible operation

is within the range defined by the upper value and the lower value [limit values in the limit locations]; and

means for reporting a success if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations].

4. (Previously presented) The processing system of claim 3 wherein the first, second, third, and fourth uninterruptible operations are LOCK XADD operations.

5. (Twice amended) A method for performing addition and subtraction within limits upon a shared value comprising the steps of:

first, performing a first uninterruptible operation upon the shared value stored in an affected reservation location, the first uninterruptible operation using an operand;

second, comparing a resulting value of the first uninterruptible operation stored in the affected reservation location to an upper value and a lower value to determine if the resulting value is within a range defined by the upper value and the lower value that can be changed [limit values stored in limit locations];

third, performing a second uninterruptible operation to restore the affected reservation location;

fourth, reporting a failure if the resulting value is not within the range defined by the upper value and the lower value [limit values in the limit locations];

fifth, performing a third uninterruptible operation to update an actual value location if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations];

sixth, performing a fourth uninterruptible operation to update an unaffected reservation location if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations]; and

seventh, reporting a success if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations].

6. (Previously presented) The method of claim 5 wherein the first, second, third, and fourth uninterruptible operations are LOCK XADD operations.

7. (Twice amended) A computer readable medium containing computer readable code comprising:

a code segment for performing a first uninterruptible operation upon the shared value stored in an affected reservation location, the first uninterruptible operation using an operand;

a code segment for comparing a resulting value of the first uninterruptible operation stored in the affected reservation location to an upper value and a lower value to determine if the resulting value is within a range defined by the upper value and the lower value that can be changed [limit values stored in limit locations];

a code segment for performing a second uninterruptible operation to restore the affected reservation location;

a code segment for reporting a failure if the resulting value is not within the range defined by the upper value and the lower value [limit values in the limit locations];

a code segment for performing a third uninterruptible operation to update an actual value location if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations];

a code segment for performing a fourth uninterruptible operation to update an unaffected reservation location if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations]; and

a code segment for reporting a success if the resulting value is within the range defined by the upper value and the lower value [limit values in the limit locations].

8. (Twice amended) A processing system for performing addition and subtraction within limits upon a shared value comprising:

a processor, the processor

performing a first uninterruptible operation upon the shared value stored in an affected reservation location, the first uninterruptible operation using an operand;

comparing a resulting value of the first uninterruptible operation stored in the affected reservation location to an upper value and a lower value to determine if the resulting value is within a range defined by the upper value and the lower value that can be changed [limit values stored in limit locations];

performing a second uninterruptible operation to restore the affected reservation location if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value [limit values in the limit locations];

reporting a failure if the resulting value of the first uninterruptible operation is not within the range defined by the upper value and the lower value [limit values in the limit locations];

performing a third uninterruptible operation to update an actual value location if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations];

performing a fourth uninterruptible operation to update an unaffected reservation location if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations]; and

reporting a success if the resulting value of the first uninterruptible operation is within the range defined by the upper value and the lower value [limit values in the limit locations].